

UNITED STATES DEPARTMENT OF COMMERCE **Patent and Trademark Office**

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	APPLICATION NO.	FILING DATE	FIRST NAMED	INVENTOR	ATTORNEY DOCKET NO		
	09/057,036	04/0 8/98	KENNEDY		В	020431.0411	
Γ			LM61/0216		EXAMINER		
	BAKER & BO	TTS	L. IOI / OLIO		JONES,	Н	
	2001 ROSS				ART UNIT	PAPER NUMBER	
	DALLAS TX	75201-2980			2763	7.	
					DATE MAILED:	02/16/99	

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks



UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

LM61/0216

BAKER & BOTTS 2001 ROSS AVENUE DALLAS TX 75201-2980

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT		DATE MAILED
09/057,036	04/08/98	012	JONES, H	2763	02/16/99
First Named KENNEDY,		35 U	6C 154(b) term ext. =	Ø Days	5.

TITLE OF EXTENSIBLE MODEL NETWORK REPRESENTATION SYSTEM FOR PROCESS PLANNING (AS AMENDED)

Γ	ATTY'S DOCKET NO. CLASS-SUBC		CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
	0	020431.041	1 364-57	/8.000 P	17 UTILITY	/ NO	\$1210.00	05/17/99

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED.</u>

HOW TO RESPOND TO THIS NOTICE:

- I. Review the SMALL ENTITY status shown above. If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:
 - A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
 - B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.
- II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give application number and batch number.

 Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PATENT AND TRADEMARK OFFICE COPY

Notice of Allowability

Application No. 09/057,036 Applicant(s)

Kennedy

Examiner

Hugh Jones

Group Art Unit 2763



All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.
\boxtimes This communication is responsive to $\underline{\it O1/26/99}$.
▼ The allowed claim(s) is/are 41, 42, 45, 47, 49, 51-54, and 57-59, now renumbered 1-12
▼ The drawings filed on Apr 8, 1998 are acceptable.
☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.
received in Application No. (Series Code/Serial Number)
received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
*Certified copies not received:
Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).
■ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
☐ Applicant MUST submit NEW FORMAL DRAWINGS
because the originally filed drawings were declared by applicant to be informal.
including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No
including changes required by the proposed drawing correction filed on, which has been approved by the examiner.
☐ including changes required by the attached Examiner's Amendment/Comment.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal lettter addressed to the Official Draftsperson.
☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.
Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.
Attachment(s)
☐ Notice of References Cited, PTO-892
☐ Information Disclosure Statement(s), PTO-1449, Paper No(s).
☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
□ Notice of Informal Patent Application, PTO-152
☐ Interview Summary, PTO-413 ☐ Examiner's Amendment/Comment
☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
⊠ Examiner's Statement of Reasons for Allowance

Notice of Allowability

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DETAILED ACTION

Allowable Subject Matter

- 1. The following is an examiner's statement of reasons for allowance: The terminal disclaimer filed on 01/26/99 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U. S. Patent 5,764,543 has been reviewed and is accepted. The applicant has also responded to and complied with examiner's requests. The patentability of the claims is now addressed.
- The prior art made of record in paper # 4 demonstrate that there is art in the area disclosed by the applicant; in particular, as pertains to the use of object oriented languages for process control. However, the configuration (specifically, the object classes appear to be unique, especially the "buffer" class; in addition, the ability to develop plans [actualizations] from the models [a diagram of all possibilities] appears to be well developed [although this is hinted at in Hirsch (below)]), as disclosed in the application, has not been found in the art.
- (1) Bristol (U. S. Patent 5,247,693, Computer Language Structure for Process Control Applications and Method of Translating Same into Program Code to Operate the Computer, 1993) discloses a language structure and translator specifically adapted for use in constructing computer programs for controlling chemical and physical processing. The use of object oriented programming for this purpose is also disclosed. See especially figs. 1C, 2, 8, 12; and Summary of the Invention.

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(2) Onarheim et al. (U. S. Patent 5,168,441, Methods for Set Up and Programming of Machine and Process Controllers, 1992) discloses the use of Smalltalk, an object-oriented programming language for process control. See especially figs. 2, 3, 5.

- (3) Hirsch et al. (U. S. Patent 5,586,039, Computer-Aided Manufacturing Support

 Method and System for Specifying Relationships for Dependencies Between Process Type

 Components, 1996) discloses a method and system, for use with a computer integrated

 manufacturing system, to classify and serve as the data and information repository for a process or

 product specification and to classify groups of process resources. See especially cols. 1-3; col. 4,

 lines 57-67; and cols. 5-6. Hirsch et al. also disclose the use of Smalltalk.
- (4) Tantry et al. (U. S. Patent 5,398,336, Object-Oriented Architecture for Factory Floor Management, 1995) discloses an object-oriented architecture for a factory floor management software system wherein factory floor entities are modeled as factory objects within a relational database. Note especially figs. 3-4; table 1; and cols. 2-8.
- 3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance." The terminal disclaimer has been recorded.

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Hugh Jones whose telephone number is (703) 305-0023.

Dr. Hugh Jones

February 8, 1999